

## In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims

1. (Currently amended) ~~A~~ The combination of a drive pulley (30) ~~with the~~ and a rotor of a rotary electrical machine for a motor vehicle, ~~especially an alternator or an alternator starter,~~ comprising: ~~[[, firstly,]]~~

a shaft (18) carrying ~~[[a]]~~ the rotor and a front ball bearing (26), the shaft having a splined outer portion (75) with an alternate arrangement of axial splines (76) and axial teeth (77); ~~and secondly,~~

a pulley (30) having a peripheral working zone (92) adapted to cooperate with a drive belt, together with a central hub (93) having an axial hole (94) ~~for passage of~~ receiving the shaft (18) of the rotor, the pulley including through it, ~~characterised in that the pulley (30) includes a splined inner portion (95) for its attachment, by force-fitting, on a complementary to and force-fit attached on the shaft~~ splined outer portion, of the shaft (18) of the rotor, the latter having on its outer periphery an alternate arrangement of axial splines (76) and axial teeth (77).

2. (Currently amended) The combination according to Claim 1, ~~characterised in that~~ wherein the central hub (93) includes a transverse shoulder (96) ~~adapted to come into abutment~~ abutting against a transverse face (98) of an inner race (50) of the ball bearing (26) that guides the shaft of the rotor (18) in rotation.

3. (Currently amended) The combination according to Claim 1, ~~characterised in that~~  
wherein the shaft (18) includes an intermediate portion (72), ~~and which is extended in length by~~  
a smooth cylindrical surface (70) which is interposed between the intermediate portion (72) and  
the splined outer portion (75) and receives ~~adapted to receive~~ the ball bearing (26).

4. (Currently amended) The combination according to Claim 3, ~~characterised in that~~  
wherein the smooth cylindrical surface (70) is extended in length by a splined external free end  
portion (75) which includes on its outer periphery an alternate arrangement of the axial splines  
(76) and axial teeth (77).

5. (Currently amended) The combination according to Claim 4, ~~characterised in that~~  
wherein the splined external free end portion (75) ~~is stepped in diameter on the outside~~ has a  
stepped outer diameter.

6. (Currently amended) The combination according to Claim 5, ~~characterised in that~~  
wherein the splined external free end portion (75) includes a short portion (78) which includes  
teeth (77), the outer diameter of which is equal to the outer diameter of the smooth cylindrical  
surface (70).

7. (Currently amended) The combination according to Claim 6, ~~characterised in that~~  
wherein the ball bearing (26) is mounted both on the smooth cylindrical surface (70) and on the  
short splined portion (78).

8. (Currently amended) The combination according to Claim 1, ~~characterised in that the free front end of wherein~~ the teeth (77) has have front ends with a chamfer (79) for facilitating force fitting of the pulley.

9. (Currently amended) The combination according to Claim 1, ~~characterised in that the free end of wherein~~ the shaft (18) includes a free front end with a pilot end configuration (80) adapted to facilitate fitting of the pulley (30).

10. (Currently amended) The combination according to Claim 9, ~~characterised in that wherein~~ the pilot end configuration (80) comprises a chamfer (81) to facilitate fitting of the pulley (30).

11. (Currently amended) The combination according to Claim 10, ~~characterised in that the outer diameter of wherein~~ the pilot end configuration (80) has an outer diameter that is substantially equal to the an inner diameter of a set of teeth (77) on the pulley (30).

12. (Currently amended and withdrawn) The combination according to Claim 1, ~~characterised in that the free end of wherein~~ the shaft (18) includes a threaded socket (82) coaxial with the an axis (X-X) of the shaft (18), ~~for the purpose of fitting the socket adapted to facilitate the force-fit attachment of the pulley to the shaft.~~

13. (Currently amended) The combination according to Claim 1, ~~characterised in that~~ wherein the splined internal portion (95) of the pulley (30) consists of an alternate arrangement of axial splines (76') and axial teeth (77').

14. (Currently amended) The combination according to Claim 1, ~~characterised in that the set of wherein~~ teeth is collectively establish a conical shape, whereby and wherein the tooth thickness varies linearly over all or part of the length ~~used in the force-fitting assembly operation of the teeth to facilitate force fitting of the pulley (30) on the shaft (18).~~

15. (Currently amended) The combination according to Claim 1, ~~characterised in that, for force-fitting the pulley (30) on the shaft (18), it is~~ wherein only the flanks of the teeth (77, 77') of the pulley (30) and shaft (18) ~~that~~ are in contact.

16. (Currently amended) The combination according to Claim 15, ~~characterised in that, for the force-fitting of the pulley (30) on the shaft (18), the~~ wherein an interference of a fit between the pulley and the shaft is in the range between 50 and 200 microns.

17. (Currently amended) The combination according to Claim 1, ~~characterised in that~~ wherein the pulley (30) is located by an axial locating device.

18. (Currently amended) The combination according to Claim 1, ~~characterised in that the free end of wherein~~ the shaft (18) has a free end with a cutting edge over the whole perimeter of the set of teeth, while the pulley (30) has a smooth annular hub (93) for the formation of the

splines of the pulley (30) by scoring during the force-fitting operation of the pulley (30) on the shaft (18).

19. (Currently amended) The combination according to Claim 1, ~~characterised in that~~  
wherein the shaft (18) and the pulley (30) are formed from materials having coefficients of expansion which are close or identical to each other, whereby to guarantee the tight fit of the pulley on the shaft.

20. (Canceled)